# BookletChart™

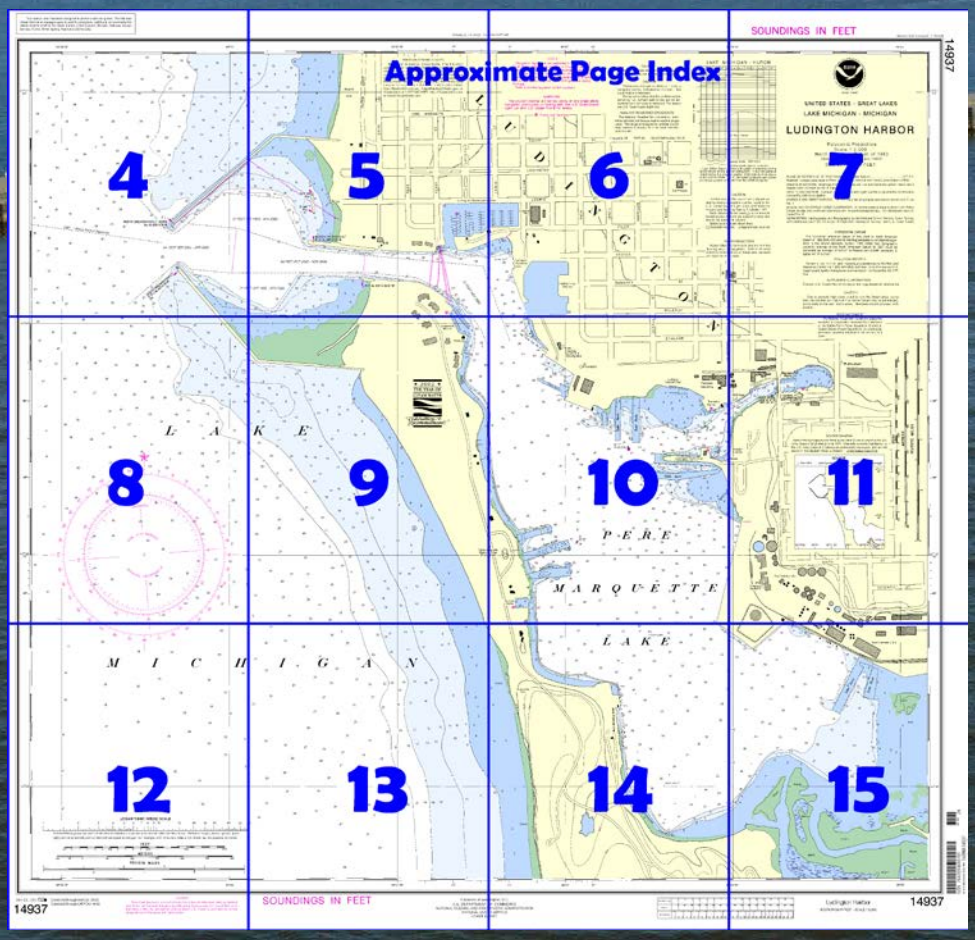
## Ludington Harbor

### NOAA Chart 14937

***A reduced-scale NOAA nautical chart for small boaters***

***When possible, use the full-size NOAA chart for navigation.***


- *Complete, reduced-scale nautical chart*
- *Print at home for free*
- *Convenient size*
- *Up-to-date with Notices to Mariners*
- *Compiled by NOAA's Office of Coast Survey, the nation's chartmaker*



***Published by the***
***National Oceanic and Atmospheric Administration***
***National Ocean Service***
***Office of Coast Survey***
***www.NauticalCharts.NOAA.gov***
***888-990-NOAA***

### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=14937


**(Selected Excerpts from Coast Pilot)**.
**Ludington Harbor** is in Pere Marquette Lake, 7.5 miles south of Big Sable Point. The city of **Ludington, MI,** is on the north side of the lake.
**Ludington North Breakwater Light** (43°57'13"N., 86°28'10"W.) is shown from a white square pyramidal tower on the outer end of the north breakwater. A sound signal, which operates by keying the microphone five times on VHF-FM channel 79, is at the light.
**Channels.–**A dredged entrance channel leads east from deep water in Lake Michigan between converging breakwaters to an outer harbor basin. The outer ends of the breakwaters are marked by lights. From the basin, the channel leads to the north end of Pere Marquette Lake. (See Notice to Mariners and the latest edition of the chart for controlling depths.) The channel is protected by piers and revetments on the north and south sides. The piers are marked at their outer ends by lights.
The outer basin is not adapted for anchorage of vessels, but reduces wave action in the inner harbor. Mooring to the breakwaters, piers, and revetments is prohibited. Mariners are cautioned against navigating outside channel limits in the vicinity of structures protected by stone riprap.
**Pere Marquette Lake** is about 2 miles long, including a marsh at the south end, has an average width of 0.5 mile, and is up to 43 feet deep. The anchorage is good. **Pere Marquette River,** which flows into the south end of Pere Marquette Lake, is not navigable above the lake except for rowboats and small launches.
A buoy marks the outer end of submerged dock ruins on the west side of Pere Marquette Lake. Buoys mark the north side of the channel leading to the small-craft facilities in the inlet on the northeast side of the lake.
**Caution.–**Northwest and southwest winds make entry between the breakwaters hazardous. Vessels usually increase their speed until just inside the breakwaters to compensate. Small-craft operators transiting from south to north have reported that South Breakwater Light is sometimes difficult to see because of the brilliance of North Breakwater Light.
**Bridges.–**A fixed highway bridge with a clearance of 12 feet crosses the inlet on the northeast side of Pere Marquette Lake.
**Coast Guard.–**Ludington Coast Guard Station is on the north side of the harbor entrance.
**Harbor regulations.–**A **speed limit** of 8 mph (7 knots) is enforced when entering or leaving Ludington Harbor. (See **33 CFR 162.120,** chapter 2, for regulations.)
**Wharves.–**Ludington has one major deep-draft facility. (For complete information on the port facilities, refer to Port Series No. 48, published and sold by the U.S. Army Corps of Engineers. See Appendix A for address.) The alongside depths given for these facilities are reported depths. (For information on the latest depths, contact the operators.)
Occidental Chemical Corporation, Ludington Plant West Wharf: (43°56'28"N., 86°26'31"W.); 1,367-foot face; 23 to 27 feet alongside; deck height, 4½ feet; open storage for 500,000 tons of limestone; receipt of limestone; owned and operated by Occidental Chemical Corporation.
Occidental Chemical Corporation, Ludington Plant East Wharf: (43°56'20"N., 86°26'23"W.); 550-foot face; 28 feet alongside; deck height, 4½ feet; shipment of liquid calcium chloride; owned and operated by Occidental Chemical Corporation.
**Small-craft facilities.–**A municipal marina is on the north side of Pere Marquette Lake just inside the entrance. The marina has several transient berths and provides gasoline, diesel fuel, electricity, water, ice and a pump-out facility. A large marina is just southeast of the municipal marina with about 60 transient berths and provides gasoline, diesel fuel, electricity, water, ice and pump-out facility. Additional private marinas are along the west side of Pere Marquette Lake and in the northeast arm of the lake. All marinas monitor VHF-FM channel 9.
**Ferries.–**Ferry service is available from Ludington to Manitowoc, WI from about mid May to the end of October for autos, and passengers. The terminal is about 1 mile southeast of the harbor entrance.

**U.S. Coast Guard Rescue Coordination Center**
**24 hour Regional Contact for Emergencies**

| | | |
|---|---|---|
| RCC Cleveland | Commander<br>9th CG District<br>Cleveland, OH | (216) 902-6117 |

# Table of Selected Chart Notes

Ⓟ Pump-out facilities

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Imagery and Mapping Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

NOAA VHF-FM WEATHER BROADCASTS

The National Weather Service station listed below provides continuous marine weather broadcasts. The range of reception is variable, but for most stations is usually 20 to 40 miles from the antenna site.

| | | |
|---|---|---|
| Hesperia, Mi | WWF-36 | 162.475 MHz(chan. WX-3) |

Polyconic Projection
Scale 1:5,000
North American Datum of 1983
(World Goedetic System 1984)
SOUNDINGS IN FEET

NOTE A

Navigation regulations are published in Chapter 2 U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio, or at the Office of the District Engineer, Corps of Engineers in Detroit, Michigan.

Refer to charted regulation section numbers.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot 6 for details.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83) and for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.015" northward and 0.299" westward to agree with this chart.

SOURCE DIAGRAM

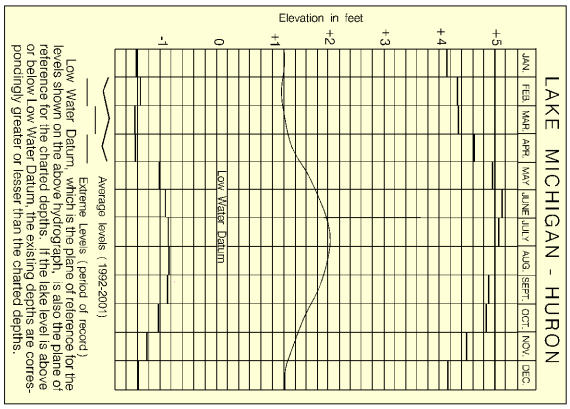
Most of the hydrography identified by the letter "j" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).




SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

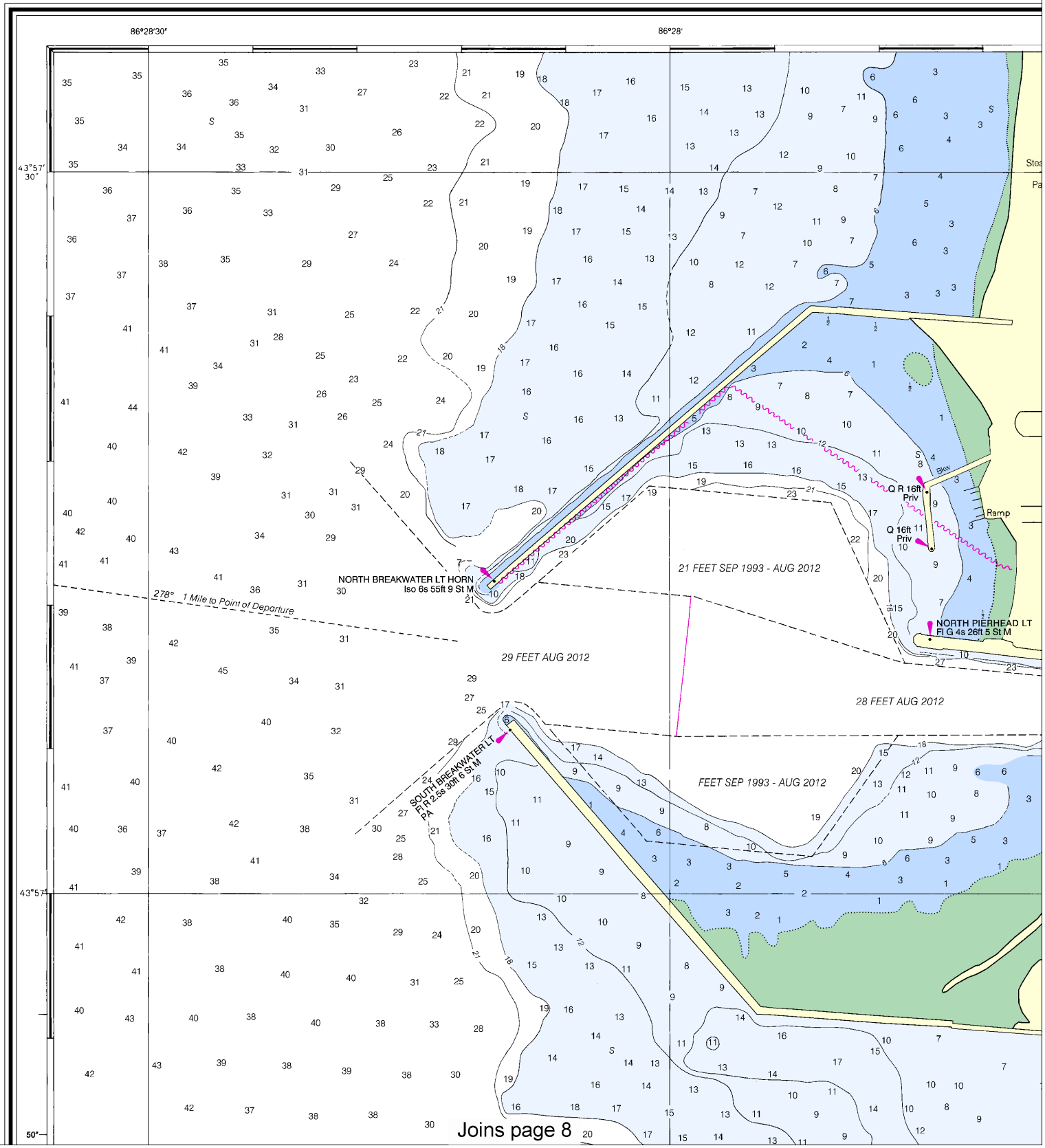
SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.

PLANE OF REFERENCE OF THIS CHART (Low Water Datum).....577.5 ft.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.




4

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

~~SCALE 1:5,000~~

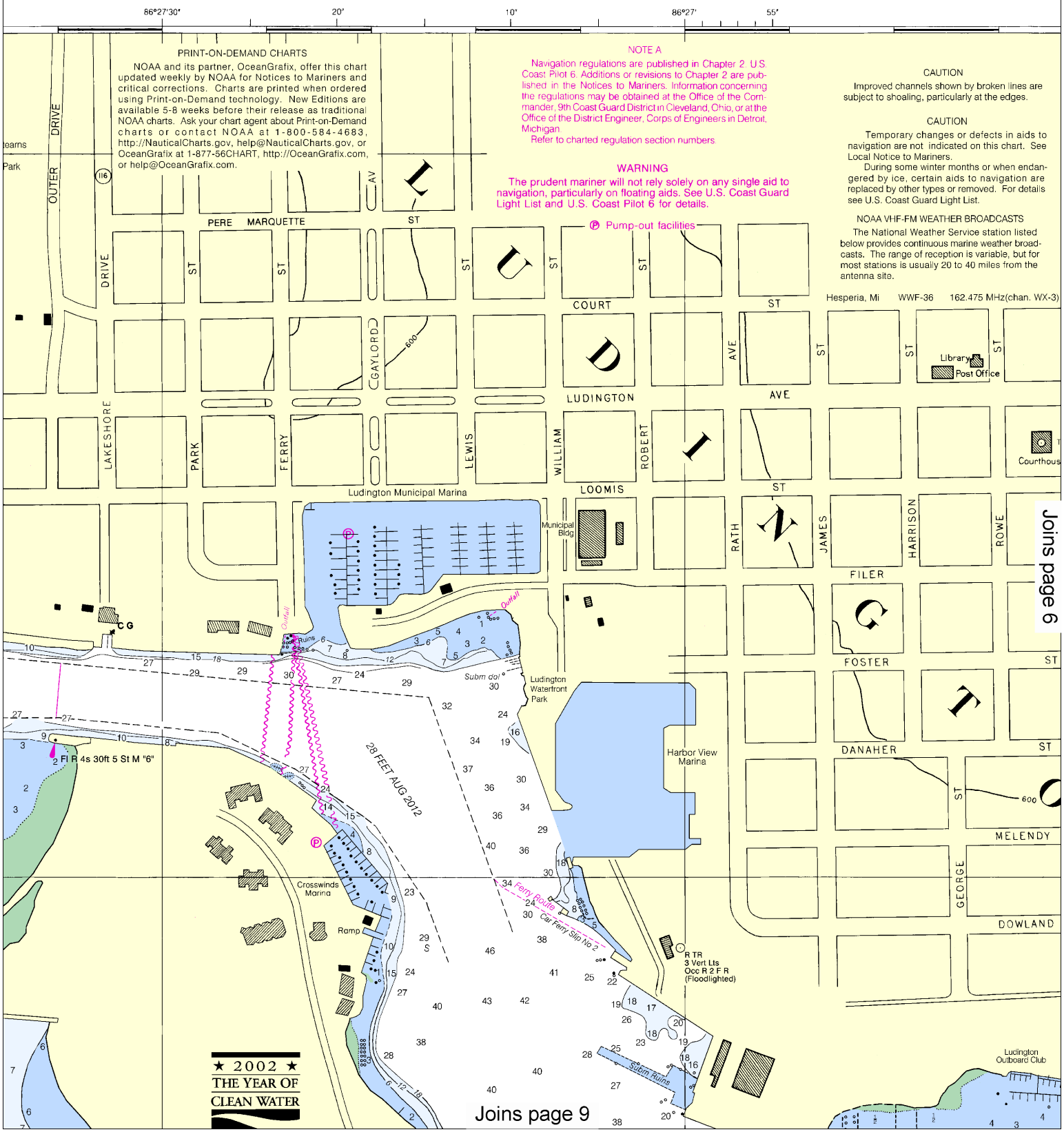
0.5 Nautical Miles

0 0.1 0.2 0.3 0.4 0.5

Yards

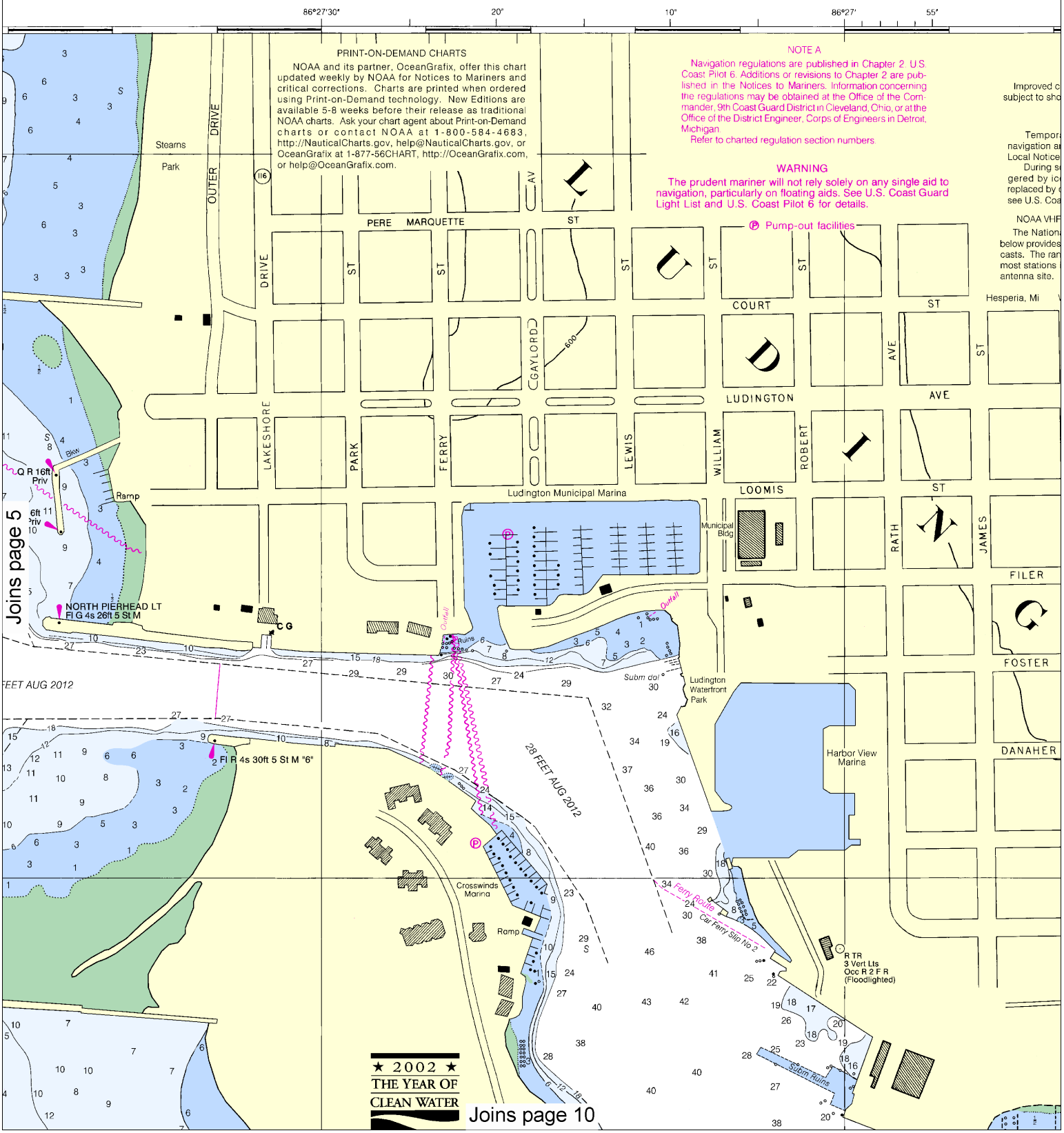
100 0 100 200 300 400 500 600

See Note on page 5.




This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:6667. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

Formerly LS 774 1st Ed., Mar., 1904 KAPP 1493



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SCALE 1:5,000

0.5 Nautical Miles

0 0.1 0.2 0.3 0.4 0.5

Yards

100 0 100 200 300 400 500 600

See Note on page 5.

86°26'30"

86°26'

43°57'30"

43°57'

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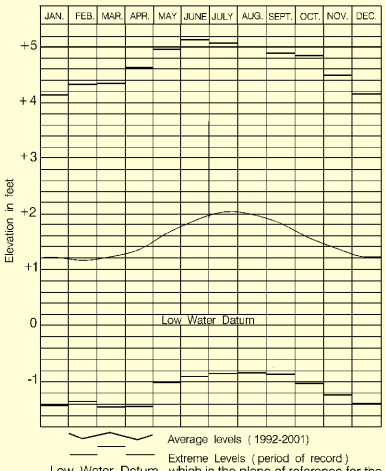
LAKE MICHIGAN - HURON




Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

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NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
COAST SURVEY

UNITED STATES - GREAT LAKES

LAKE MICHIGAN - MICHIGAN

# LUDINGTON HARBOR

Polyconic Projection
Scale 1:5,000
North American Datum of 1983
(World Geodetic System 1984)
SOUNDINGS IN FEET

NOTES

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SUPPLEMENTAL INFORMATION

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CAUTION

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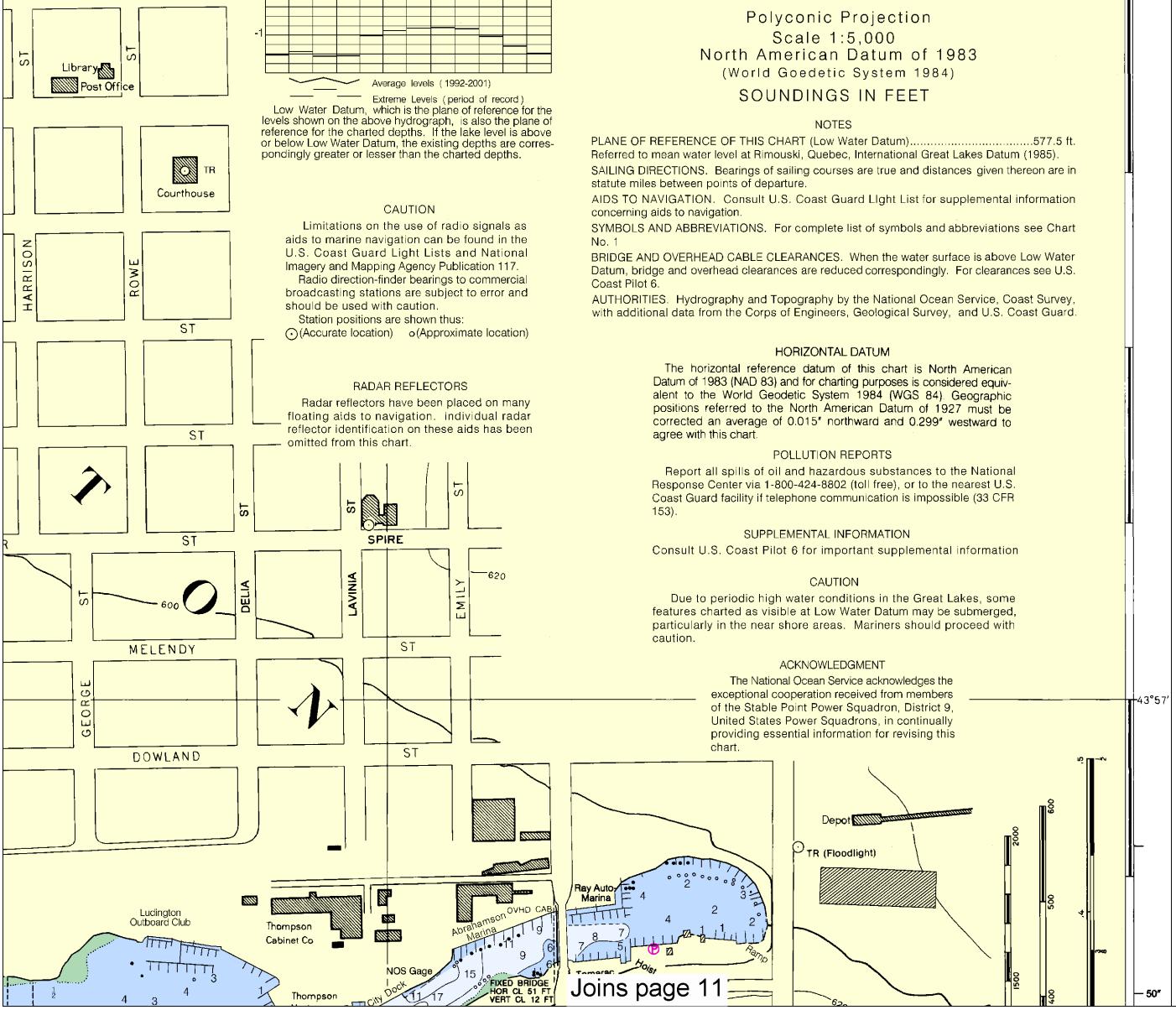
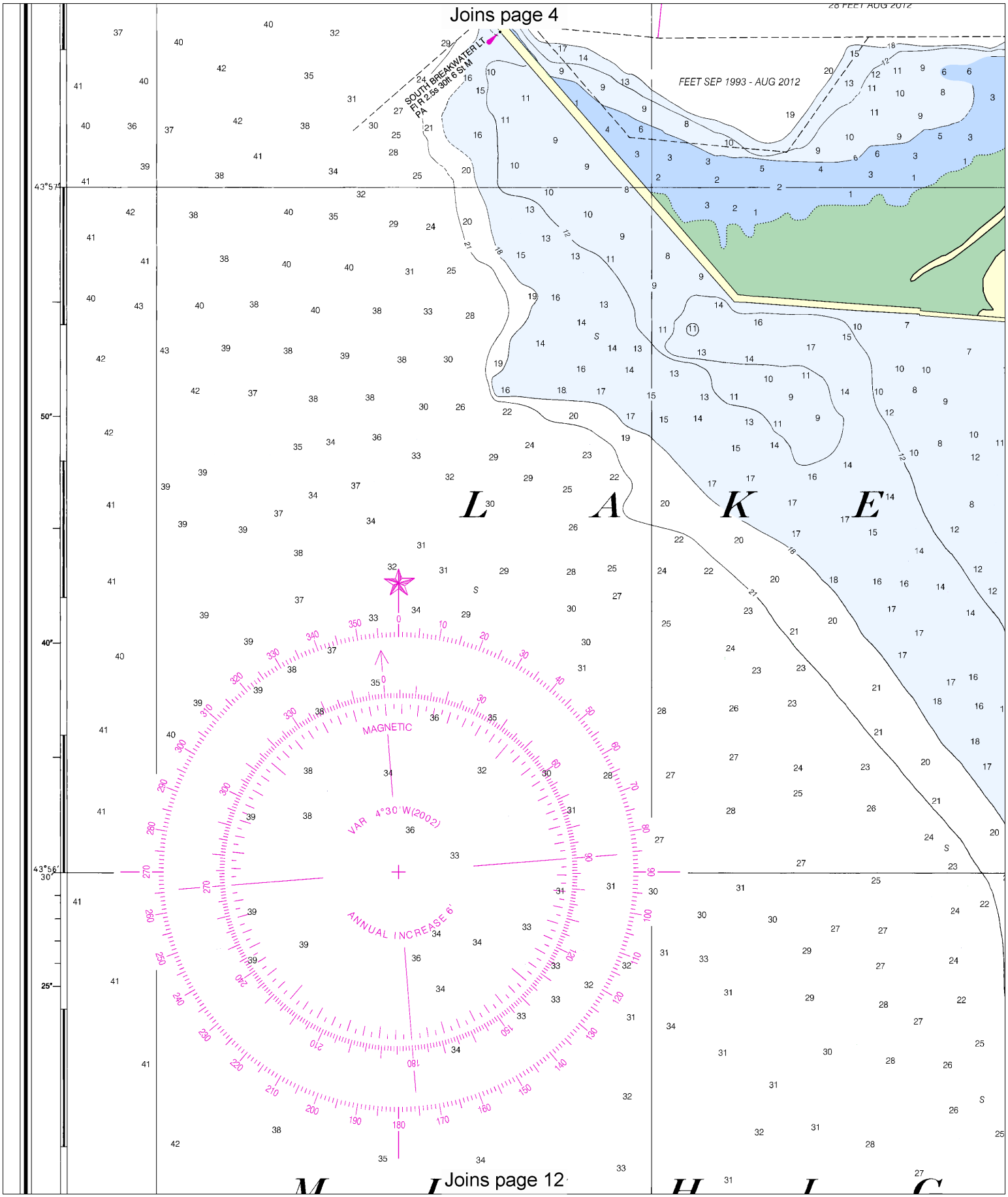
ACKNOWLEDGMENT

The National Ocean Service acknowledges the exceptional cooperation received from members of the Stable Point Power Squadron, District 9, United States Power Squadrons, in continually providing essential information for revising this chart.




Joins page 11




8

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

~~SCALE 1:5,000~~

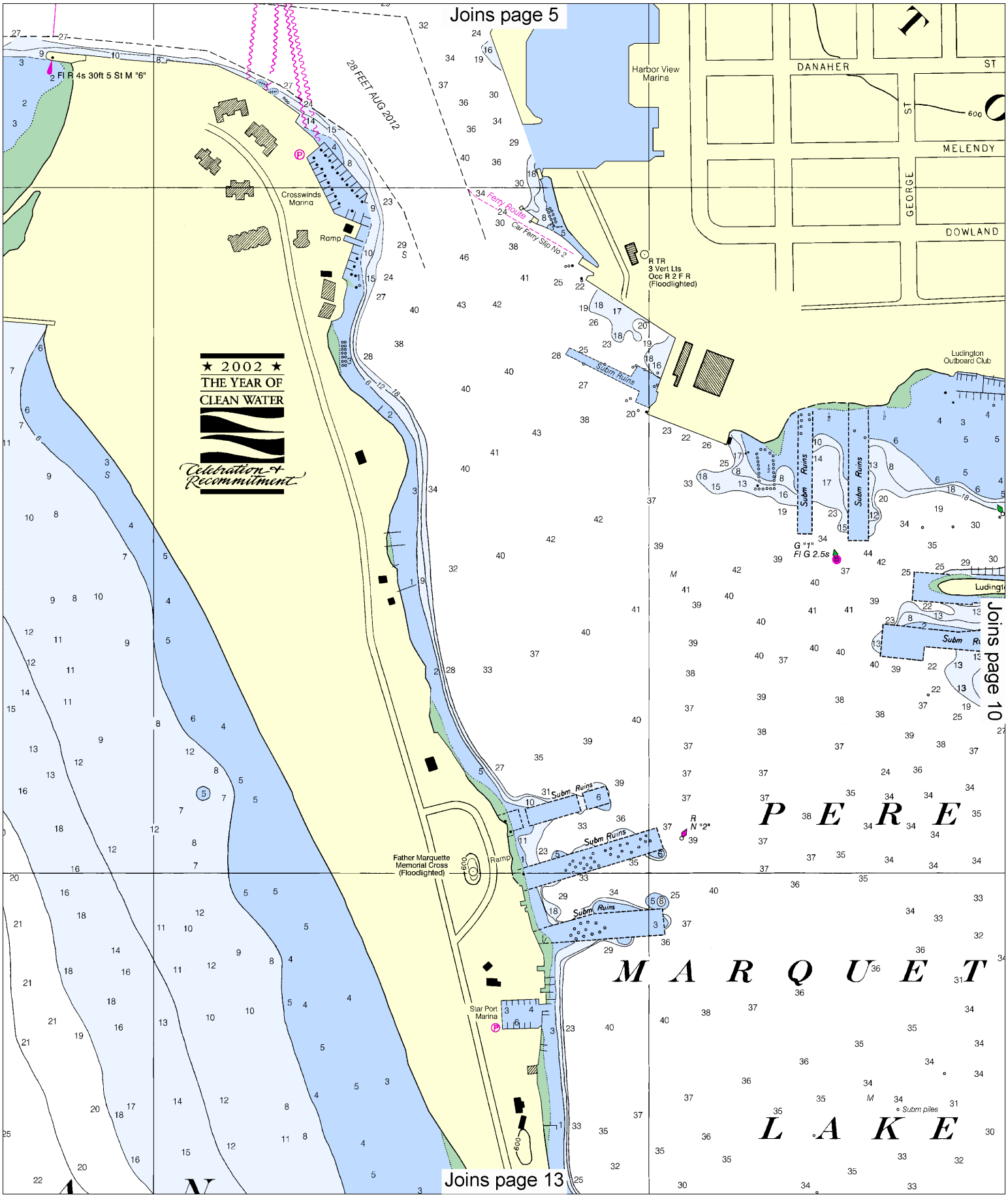
0.5 Nautical Miles

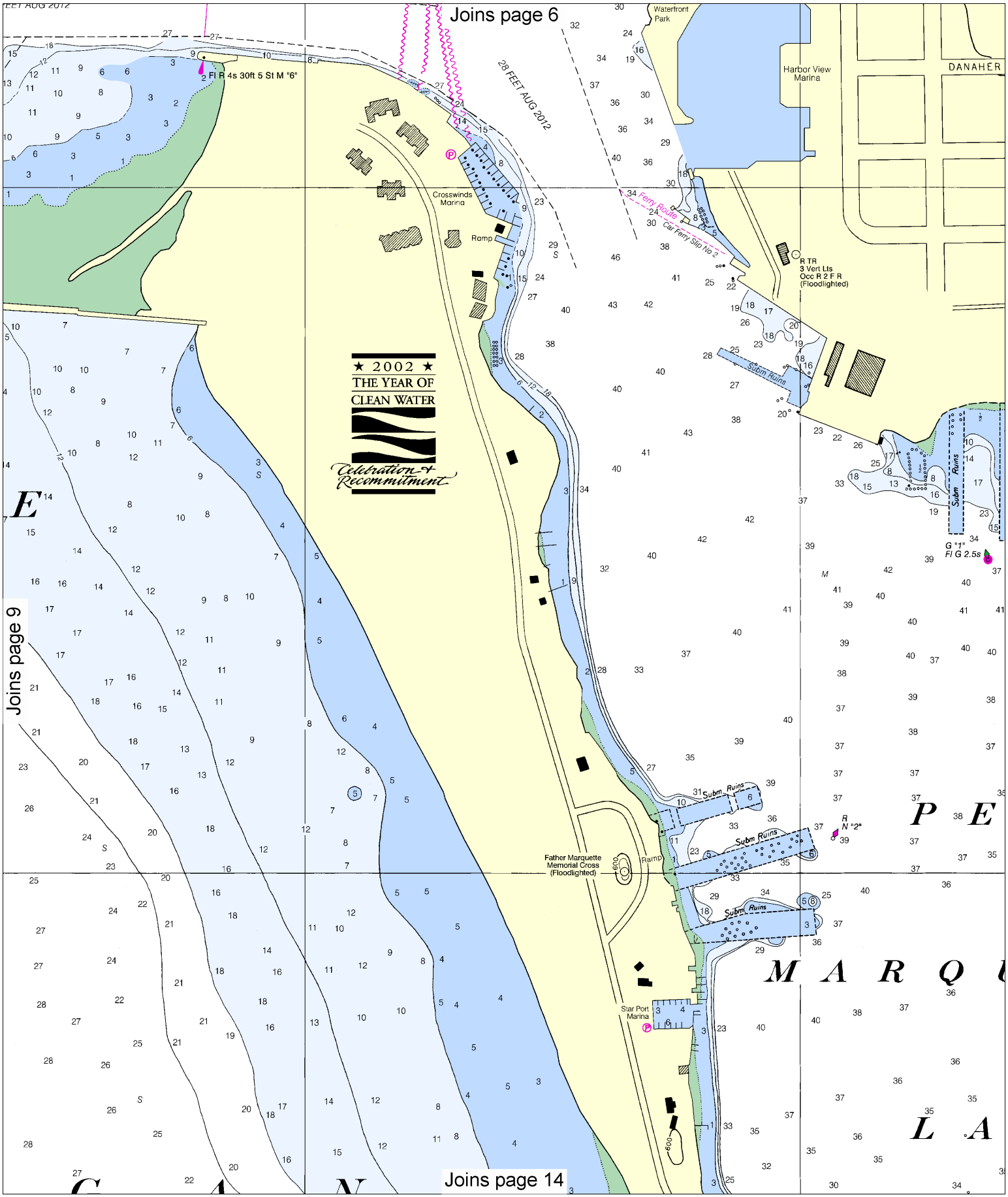
0 0.1 0.2 0.3 0.4 0.5

Yards

100 0 100 200 300 400 500 600

See Note on page 5.


Joins page 5
2 Fl R 4s 30ft 5 St M "6"
28 FEET AUG 2012
Harbor View Marina
DANAHER
ST
MELENDY
GEORGE
DOWLAND
Crosswinds Marina
Ramp
Ferry Route
Car Ferry Slip No 2
R TR
3 Vert Lts
Occ R 2 F R
(Floodlighted)
★ 2002 ★
THE YEAR OF
CLEAN WATER
Celebration & Recommitment
Subm Ruins
Ludington Outboard Club
G "1"
Fl G 2.5s
Joins page 10
Father Marquette Memorial Cross (Floodlighted)
Ramp
R
N "2"
Star Port Marina
P E R E
M A R Q U E T T E
L A K E
Subm piles
Joins page 13




10

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0.5 Nautical Miles

0 0.1 0.2 0.3 0.4 0.5

Yards

100 0 100 200 300 400 500 600

See Note on page 5.

Joins page 7

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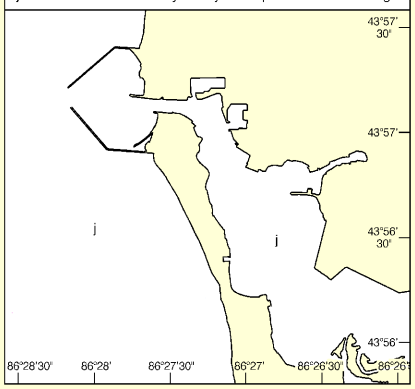
SOURCE

j Pre-1974 Lake Survey Surveys partial bottom coverage

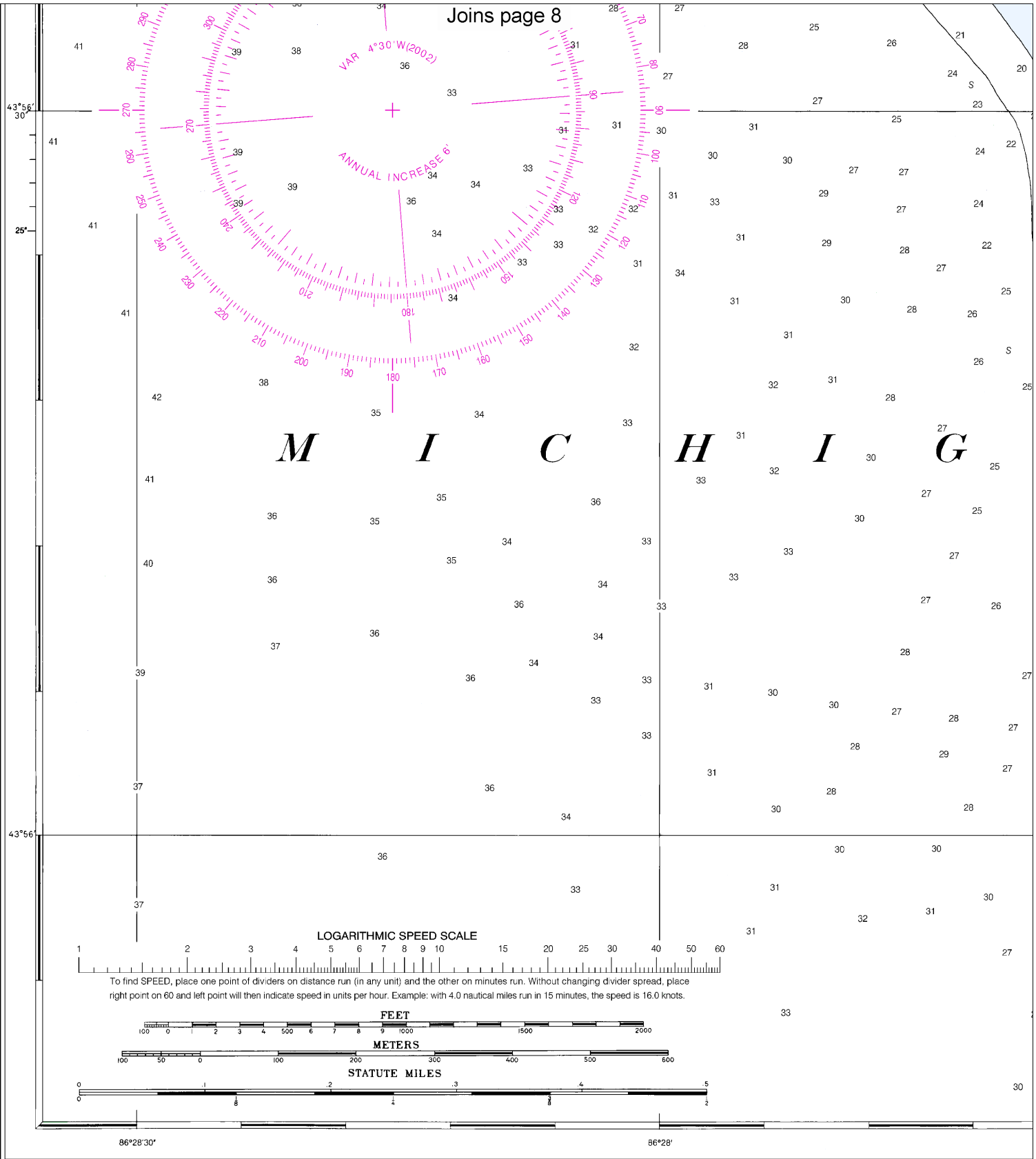



FEET METERS STATUTE MILES

Ludington Outboard Club
Thompson Cabinet Co
Abrahamson Marina
OVHD CAB
NOS Gage
City Dock
FIXED BRIDGE HOR CL 51 FT VERT CL 12 FT
Thompson Marina
Ray Auto-Marina
Tamarac Sportfishing Dock
Hoist
Ramp
WATER ST
Depot
TR (Floodlight)
FIRST ST
Subm Ruins
C "5"
C "3"
Hidden Harbor
Ramps
Ludington Yacht Club
AVE
WASHINGTON
Outfall
SIXTH ST
SEVENTH ST
Dow Chemical USA
STACK
2 Vert Lts
Oc R F R
CSX
Dow Chemical U S A
Subm piles
MELENDY ST
DOWLAND ST
SPIRE ST
DELIA ST
LAVINIA ST
EMILY ST
GEORGE ST

Joins page 15

Joins page 8




24th Ed., Oct./02■ Corrected through NM Oct. 26/02
Corrected through LNM Oct.15/02
14937

CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Imagery and Mapping Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

SOUNDINGS IN F

12

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:5,000~~

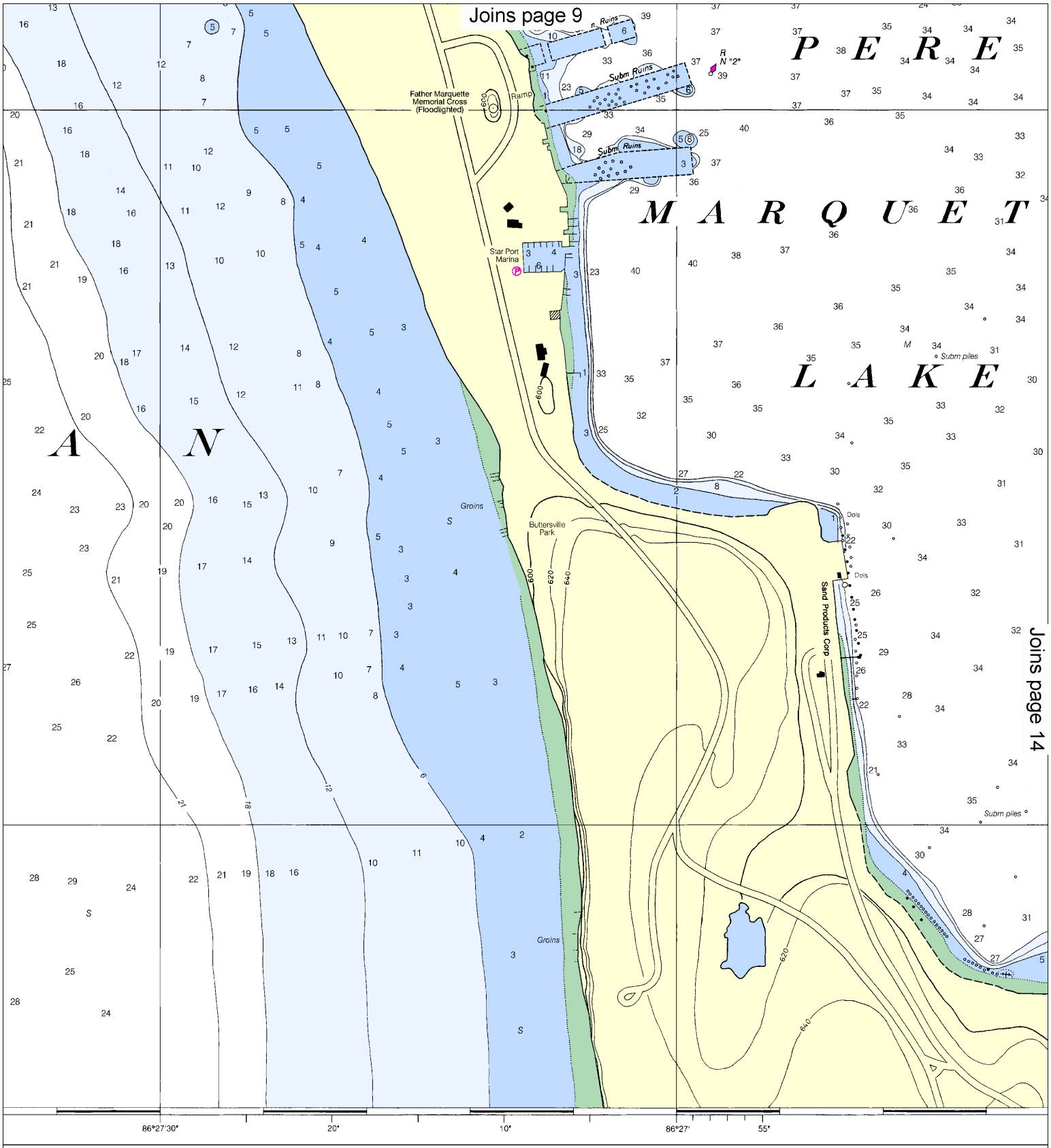
0.5 Nautical Miles

0 0.1 0.2 0.3 0.4 0.5

Yards

100 0 100 200 300 400 500 600

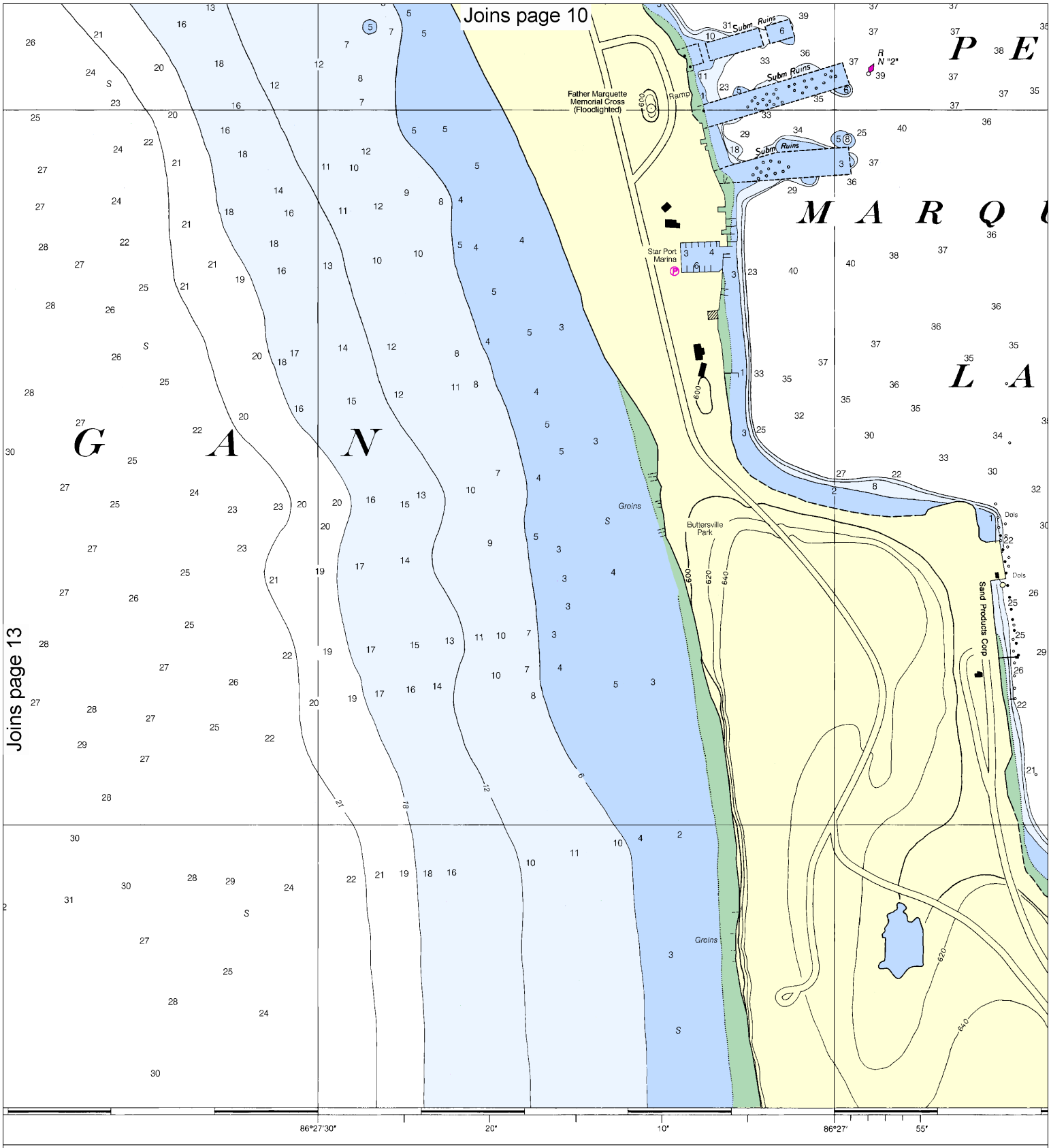
See Note on page 5.




FEET

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

| | |
|---|---|
| FATHOMS | 1 2 |
| FEET | 6 12 |
| METERS | 1 2 3 |




DINGS IN FEET

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY



Note: Chart grid lines are aligned with true north.

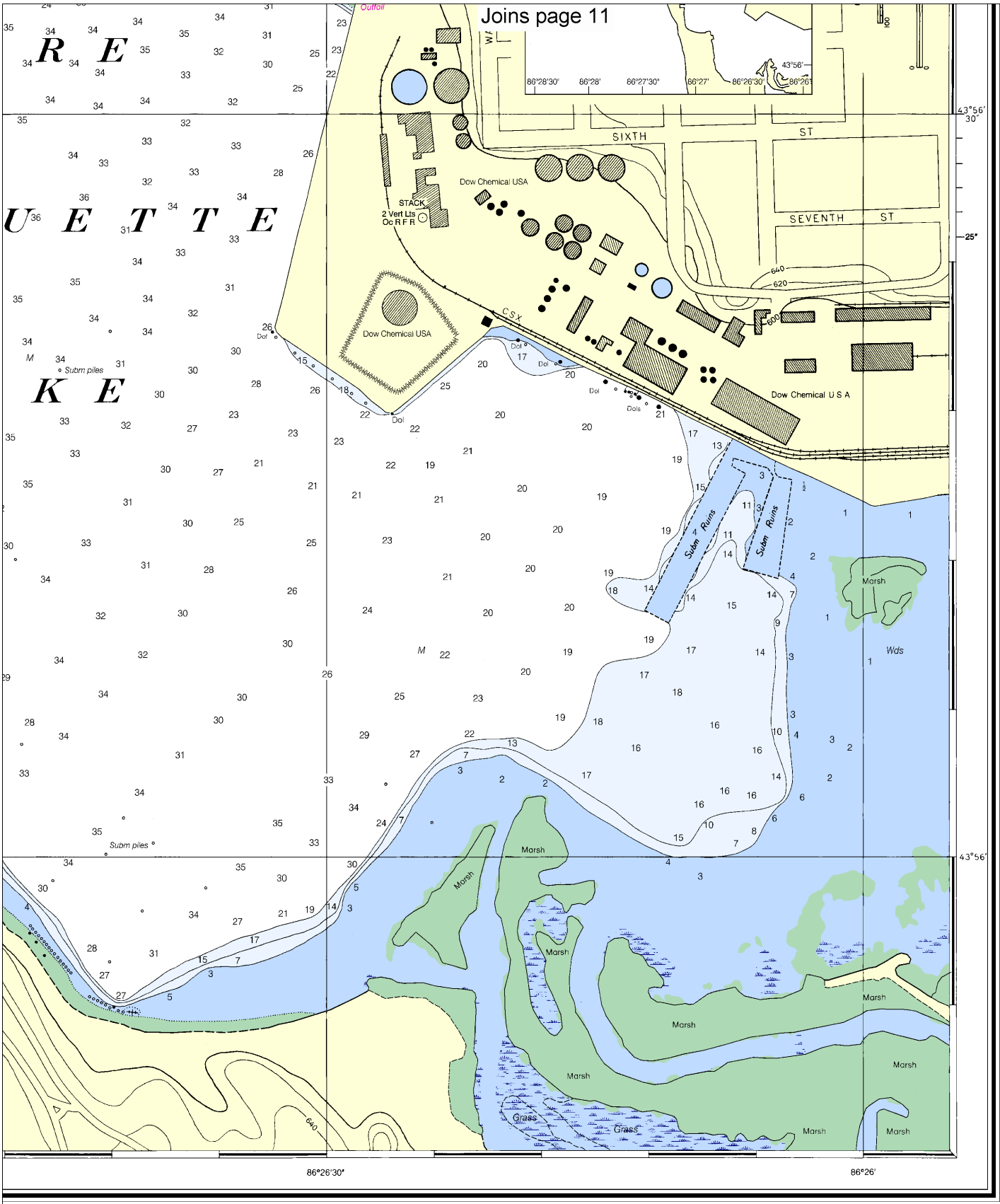
Printed at reduced scale.

~~SCALE 1:5,000~~

0 0.1 0.2 0.3 0.4 0.5 0.5 Nautical Miles

100 0 100 200 300 400 500 600 Yards

See Note on page 5.




| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FATHOMS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| FEET | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 96 | 102 |
| METERS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |

Ludington Harbor

SOUNDINGS IN FEET - SCALE 1:5,000

14937


ED NO. 24

NSN 7642014010701

NIMA REFERENCE NO. 14XHA14937

EMERGENCY INFORMATION

## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.
**Channel 9** – Communications between boats and ship-to-coast.
**Channel 13** – Navigation purposes at bridges, locks, and harbors.
**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

### Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**

All Hazards NOAA Weather Radio NOAA's National Weather Service

**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.
**http://www.nws.noaa.gov/nwr/**

## Quick References

| | | |
|---|---|---|
| Nautical chart related products and information | — | **http://www.nauticalcharts.noaa.gov** |
| Online chart viewer | — | **http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html** |
| Report a chart discrepancy | — | **http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx** |
| Chart and chart related inquiries and comments | — | **http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs** |
| Chart updates (LNM and NM corrections) | — | **http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html** |
| Coast Pilot online | — | **http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm** |
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| NowCoast web portal for coastal conditions | — | **http://www.nowcoast.noaa.gov/** |
| National Weather Service | — | **http://www.weather.gov/** |
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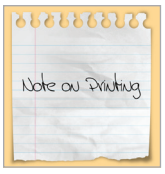


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